

VILANDER et al
Serial No. 09/734,040

Atty Dkt: 2380-198
Art Unit: 2153

REMARKS/ARGUMENTS

Dependent claim 39 has been amended to correct a typographical error regarding claim dependency.

Independent claims 41, 47, have been amended to include limitations from independent claim 1; independent claims 50 and 56 have been amended to include limitations from independent claim 18. These amendatory limitations include, e.g., the fact that the replacement protocol architecture is in lieu of ATM and AAL2 protocols.

Claims 1-12, 17, 18-27, 29, 35-40, 42-46 and 51-55 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent 6,654,344 to Toporek et al. Claims 13-16, 30-34, 41, 47, 50 and 56-58 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 6,654,344 to Toporek et al in view of Report No. 247 to Menth. All prior art rejections are respectfully traversed for at least the following reasons.

As now amended, all of Applicants' independent claims refer to a replacement protocol architecture including, *in lieu of the ATM and AAL2 protocols*, Internet Protocol as a protocol above a link layer protocol, wherein the interface is one of: (1) an interface between a core network and a radio access network which carries circuit switched connections; (2) an interface between a radio network controller (RNC) and a base station; and (3) an interface between two radio network controllers (RNCs).

U.S. Patent 6,654,344 to Toporek et al. does not refer to any one of the UMTS type interfaces involved in Applicants' claims, but instead is directed to a satellite interface. There is no teaching or suggestion in U.S. Patent 6,654,344 to Toporek et al. of a replacement protocol architecture that can be used in lieu of the ATM and AAL2 protocols. As amply explained in Applicants' specification, the ATM and AAL2 protocols provide a connection identifier (via the AAL2 connection identifier (CID)) and

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in-sequence delivery. Replacing AAL2 in the protocol stack for the interface (be it the Iu-CS Interface, the Iub Interface, or the Iur Interface) therefore involves identifying the user plane data flow between the same two nodes (e.g., between an RNC and MSC) within another protocol. Moreover, to compensate for the in-sequence delivery provided by ATM but not provided by IP protocol generally, the claimed new protocol stacks provide means for a receiver to re-order the incoming IP datagrams, and to detect missing IP datagrams. For example, the new protocol stacks of the present invention incorporate a sequence number field of some type since IP datagrams of the IP Protocol may not always arrive in the order in which they have been sent.

Contrary to intimations in the Office Action, U.S. Patent 6,654,344 to Toporek et al. never mentions usage of a protocol stack in lieu of ATM and AAL2 protocols. Toporek at best contains an oblique reference to AAL5 protocol. See col. 8, line 24+, wherein Toporek states that his XTP protocol "generally requires that the underlying data delivery service provides framing and delivery of packets from one XTP-equipped host to another. This could be raw MAC or IP or AAL5." Thus, to the extent that Toporek mentions ATM, Toporek indicates that AAL5 would be generally required. So Toporek cannot properly be cited as a teaching of usage of Applicants' claimed protocol stack in lieu of ATM and AAL2 protocols over an interface that conventionally uses ATM and AAL2 protocols.

Various ones of Applicants' claims have yet further distinguishing features. For example, independent claims 41 and 50 require that UDP port numbers of the UDP Protocol be used as connection identifiers. U.S. Patent 6,654,344 to Toporek et al. has no teaching of use of UDP port numbers as connection identifiers, nor is there any specific allegation in the Office Action of such teaching or reference to an alleged relevant passage in Toporek.

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As a further example, independent claims 47 and 56 are specifically directed to use of a particular protocol stack over an interface between a radio access network and a core network which carries circuit switched connections. Applicants do not see how any aspect of Toporek concerns a protocol for an interface which carries circuit switched connections. In fact, the browser application in col. 10, lines 29 – 65 as pointed out in the Office Action strictly concerns packet switched connections.

Dependent claims 5 concern a sequence number being carried in an Internet Protocol (in one of an IP option field and a IPv6 extension header). The applied passage of U.S. Patent 6,654,344 to Toporek et al., i.e., col. 7, line 59 to col. 8, line 45, describes Toporek's XTP protocol, not IP protocol, and thus no reference to an IP option field and a IPv6 extension header of an existing IP protocol.

The Toporek XTP protocol allegedly serves to improve the performance of handling end-to-end TCP sessions over a path segment that is composed of a satellite link with its characteristic long propagation delay. The addressed problem and the described solution is entirely different from Applicants', where the problem is to handle the UMTS user plane frame protocols on top of UDP/IP. The Toporek XTP protocol is not relevant to Applicants' claims.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

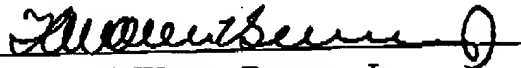
The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

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Respectfully submitted,
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